

APPENDIX OF PENDING CLAIMS

108. A method of treating allergy in humans comprising administering to a human at least one therapeutic composition in an amount sufficient to down regulate a protein allergen specific immune response in the human, wherein the therapeutic composition comprises at least one peptide having a defined sequence of amino acid residues, said peptide comprising at least about 20% of the T cell epitopes recognized by T cell receptors specific for the protein allergen, said peptide being reproducible and not being conjugated to any other molecule.

109. The method of claim 108, wherein the peptide comprises 50 amino acid residues or less.

114. The method as in any one of claims 108-109 wherein the peptide is modified by at least one amino acid substitution, addition or deletion, said peptide comprising a T cell epitope recognized by a T cell receptor specific for the protein allergen.

115. The method as in any one of claims 108-109, wherein the peptide is purified to at least about 90% purity.

116. The method of claim 115, wherein the peptide is purified to at least about 95% purity.

117. The method of claim 116, wherein the peptide is purified to at least about 97% purity.

120. The method as in any one of claims 108-109, wherein the peptide is at least about 12 amino acid residues in length.

121. The method as in any one of claims 108-109, wherein the at least one peptide comprises at least two peptides.

122. The method as in any one of claims 108-109, wherein the protein allergen is selected from the group consisting of: a protein allergen of the genus *Dermatophagoides*; a protein allergen of the genus *Felis*; a protein allergen of the genus *Ambrosia*; a protein allergen of the genus *Lolium*; a protein allergen of the genus *Cryptomeria*; a protein allergen of the genus *Alternaria*; a protein allergen of the genus *Alder*; a protein allergen of the genus *Betula*; a protein allergen of the genus *Quercus*; a protein allergen of the genus *Olea*; a protein allergen of the genus *Artemisia*; a protein allergen of the genus *Plantago*; a protein allergen of the genus *Parietaria*; a protein allergen of the genus *Canine*; a protein allergen of the genus *Blattella*; a protein allergen of the genus *Apis*; a protein allergen of the genus *Cupressus*; a protein allergen of the genus *Juniperus*; a protein allergen of the genus *Thuya*; a protein allergen of the genus *Chamaecyparis*; a protein allergen of the genus *Periplaneta*; a protein allergen of the genus *Agropyron*; a protein allergen of the genus *Secale*; a protein allergen of the genus *Triticum*; a protein allergen of the genus *Dactylis*; a protein allergen of the genus *Festuca*; a protein allergen of the genus *Poa*; a protein allergen of the genus *Avena*; a protein allergen of the genus *Holcus*; a protein allergen of the genus *Anthoxanthum*; a protein allergen of the genus *Arrhenatherum*; a protein allergen of the genus *Agrostis*; a protein allergen of the genus *Phleum*; a protein allergen of the genus *Phalaris*; a protein allergen of the genus *Paspalum*; and a protein allergen of the genus *Sorghum*.

123. The method of claim 122, wherein the protein allergen is selected from the group consisting of: *Der p I*; *Der p II*; *Der p III*; *Der p VII*; *Der f I*; *Der f II*; *Der f III*; *Der f VII*; *Fel d I*; *Amb a I.1*; *Amb a I.2*; *Amb a I.3*; *Amb a I.4*; *Amb a II*; *Lol p I*; *Lol p II*; *Lol p III*; *Lol p IV*; *Lol p IX* (*Lol p V* or *Lol p Ib*); *Cry j I*; *Cry j II*; *Can f I*; *Can f II*; *Jun s I*; *Jun v I*; *Dac g I*; *Poa p I*; *Phl p I*; and *Sor h I*.

128. The method as in any one of claims 108-109, wherein the composition further comprises a pharmaceutically acceptable carrier.

129. The method of claim 128, wherein the pharmaceutically acceptable carrier comprises at least one excipient selected from the group consisting of sterile water, sodium phosphate, mannitol, sorbitol, sodium chloride, and any combination thereof.

130. The method as in any one of claims 108-109, wherein the composition is soluble in an aqueous solution at a physiologically acceptable pH.

131. The method as in any one of claims 108-109, wherein said administering comprises a route of administration selected from the group consisting of oral, intravenous, sublingual, transdermal, inhalation, subcutaneous and rectal.

132. The method of claim 131, wherein said administering comprises subcutaneous administration of said composition.

133. The method as in any one of claims 108-109, wherein said composition is administered without adjuvant.

134. The method as in any one of claims 108-109 comprising administering an initial treatment of three to six dosages of said composition over a period of no more than 6 weeks.

135. The method of claim 134 further comprising administering an additional administration of said composition at intervals of between about three months and one year after said initial treatment.

136. The method as in any one of claims 108-109, wherein said initial treatment comprises increasing the dosage with each subsequent additional dosage of said composition.

137. The method as in any one of claims 108-109, wherein said initial treatment comprises decreasing the dosage with each subsequent additional dosage of said composition.

138. The method as in any one of claims 108-109, wherein treatment results in a statistically significant improvement in symptoms caused by the human's immune response to the protein allergen.

139. The method of claim 128, wherein treatment results in at least about 17.5% improvement, as compared to placebo, in symptoms caused by the human's immune response to the protein allergen.

140. The method of claim 128, wherein treatment results in at least about 9% improvement, as compared to placebo, in nasal symptoms caused by the human's immune response to the protein allergen.

141. The method of claim 128, wherein treatment results in at least about 17.5% improvement, as compared to placebo, in lung symptoms caused by the human's immune response to the protein allergen.

142. The method of claim 139, wherein the treatment results in at least about 23% improvement.

143. The method of claim 139, wherein the treatment results in at least about 31% improvement.

144. The method of claim 139, wherein the treatment results in at least about 28.5 % improvement.